REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-13 and 15-22 are pending in the present application. Claims 1-3, 5-7, and 12 have been amended and Claims 15-22 have been added by the present amendment. No new matter has been added.

The outstanding Office Action rejects Claims 1-7 under 35 U.S.C. § 103(a) as unpatentable over Hashimoto et al. (U.S. Patent No. 6,456,263, herein "Hashimoto '263"); rejects Claims 12 and 13 under 35 U.S.C. § 103(a) as unpatentable over Hashimoto et al. (U.S. Publication No. 2002/0186186A1, herein "Hashimoto '186") in view of Hashimoto '263; and allows claims 8-11. Applicants thank the Examiner for allowing claims 8-11.

Applicants and Applicants' representative wish to thank Examiner Eisen for the interview granted on April 2, 2004. During that interview, the outstanding rejections were discussed in detail. Further, during the interview amended claims along the lines presented herewith were discussed and arguments as hereinafter discussed were presented. During the interview Examiner Eisen indicated that such amended claims appeared to distinguish over the current rejections, and that he would update his search in view of the amended claims when such amended claims are formally presented in a filed response.

In regard to the rejection of Claims 1-7 under 35 U.S.C. § 103(a) as unpatentable over Hashimoto '263, Applicants respectfully traverse the rejection for the following reasons.

To establish a prima facie case of obviousness under 35 U.S.C. § 103(a), each of three requirements must be demonstrated. First, Hashimoto '263 must teach or suggest each and

every element recited in the claim.[1] Second, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference in a manner resulting in the claimed invention.[2] Third, a reasonable probability of success must exist with respect to the proposed modification relied upon in the rejection.[3]

Amended Claim 1 recites a plasma display device comprising, *inter alia*, a driving unit for driving a discharge cell by giving a potential difference between a first electrode and a second electrode, wherein the driving unit comprises a pulse generation unit capable of generating an operational voltage pulse derived from a predetermined pulse waveform, the predetermined pulse waveform changing from a first voltage to a second voltage, the driving unit controls the pulse generation unit to start outputting the operational voltage pulse to be applied to the first electrode at said first voltage and then to stop the continuous change of said operational voltage pulse when said operational voltage pulse reaches a third voltage, the third voltage being between the first voltage and the second voltage, and a waveform of the operational voltage pulse is the same as the predetermined pulse waveform between the first voltage and the third voltage.

Hashimoto '263 does not teach or suggest at least the above-mentioned driving unit feature of Claim 1, as amended. The outstanding Office Action cites Fig. 8 of Hashimoto '263; however, the above-mentioned subject matter of Claim 1 is not disclosed there. In Fig. 8 of Hashimoto '263, "the change rates and the maximum values of the ramp voltages are

[1] See MPEP § 2143.
[2] See id.
[3] See id.

illustrated."[4] Pra1, Pra2, Prx1, Prx2, Pry1, Pry2 have different change rates and different maximum (or minimum) values, i.e., Prx1 has the minimum value of -170 V and the change rate of -2.4 V/μs, Prx2 has the maximum value of 100 V and the change rate of 2.5 V/μs, Pry1 has the maximum value of -100 V and the change rate of 1.4 V/μs, Pry2 has the minimum value of -120 V and the change rate of -3.0 V/μs, etc. In other words, in Hashimoto '263, the pulses with different maximum (or minimum) values have different change rates as well, i.e., different maximum (or minimum) values are obtained using different pulses. Nowhere does Hashimoto '263 teach or suggest at least a driving unit comprising a pulse generation unit capable of generating an operational voltage pulse derived from a predetermined pulse waveform, the predetermined pulse waveform changing from a first voltage to a second voltage, the driving unit controls the pulse generation unit to start outputting the operational voltage pulse to be applied to the first electrode at said first voltage and then to stop the continuous change of said operational voltage pulse when said operational voltage pulse reaches a third voltage, the third voltage being between the first voltage and the second voltage, and a waveform of the operational voltage pulse is the same as the predetermined pulse waveform between the first voltage and the third voltage, as recited in Claim 1, as amended.

In addition, Hashimoto '263 does not even recognize controlling a pulse generation unit to start outputting an operational voltage pulse to be applied to a first electrode at a first voltage and then to stop the continuous change of the operational voltage pulse when the operational voltage pulse reaches a third voltage, the third voltage being between the first voltage and the second voltage, as recited in Claim 1. With this feature, "it is possible to easily generate various CR pulses by using the circuit or pulse generation system for generating the basic CR

[4] Col. 11, lines 50-52 of Hashimoto '263.

pulse . . . , depending on the setting of the [third voltage]."[5] "Therefore, since it is not necessary to provide the generation circuits as many as the kinds of CR pulses, the cost of the plasma display device . . . can be reduced."[6] The outstanding Office Action asserts that "[t]he essence of claim 1 is that the maximum output voltage level of the ramp generator can be achieved by controlling the time of the ramp, which is notoriously known in the art."[7] However, obviousness can only be established by combining or modifying the teachings of the prior art where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art.[8] Thus, even assuming that Hashimoto '263 in view of the knowledge "notoriously known in the art" teaches or suggests each and every element recited in Claim 1, which Applicants dispute, obviousness cannot be established because neither Hashimoto '263 nor the knowledge generally available to one of ordinary skill in the art teaches or suggests modifying Hashimoto '263 in any way that could render the claimed invention obvious.

Accordingly, Applicants submit that Claim 1, as amended, is patentable and the rejection of Claim 1 under 35 U.S.C. § 103(a) should be withdrawn. Claims 2-7 depend from Claim1. Thus, Applicants respectfully request that the rejection of Claims 2-7 under 35 U.S.C. § 103(a) be withdrawn as well.

In regard to the rejection of Claims 12 and 13 under 35 U.S.C. § 103(a) as unpatentable over Hashimoto '186 in view of Hashimoto '263, Applicants respectfully traverse the rejection for the following reasons.

Amended Claim 12 recites a plasma display device comprising, *inter alia*, a driving

[5] Specification, page 39, lines 8-10.
[6] Specification, page 39, lines 10-11.
[7] Office Action, page 3.

unit for driving a discharge cell by giving a potential difference between a first electrode and a second electrode, wherein the driving unit comprises a pulse generation unit capable of generating a voltage pulse which continuously changes from a first voltage to a second voltage and the driving unit controls the pulse generation unit to start outputting the voltage pulse to be applied to said first electrode and then to stop the change of said voltage pulse when said voltage pulse reaches a third voltage, the third voltage being between said first voltage and said second voltage and a change in the third voltage does not change the voltage pulse.

The outstanding Office Action points out that Hashimoto '186 does not teach the above-mentioned subject matter of Claim 12, as amended.[9] The outstanding Office Action asserts that "it would have been obvious to one of ordinary skill in the art that this voltages [sic] can be controlled as taught by Hashimoto ['263]." However, even assuming Hashimoto '186 could properly be combinable with Hashimoto '263, which Applicants dispute, Hashimoto '263 does not teach or suggest the above-mentioned subject matter of Claim 12, as amended, as discussed above with respect to Claim 1.

Accordingly, Applicants submit that Claim 12, as amended, is patentable and the rejection of Claim 12 under 35 U.S.C. § 103(a) should be withdrawn. Claim 13 depends from Claim12. Thus, Applicants respectfully request that the rejection of Claim 13 under 35 U.S.C. § 103(a) be withdrawn as well.

Claims 15-22 depend on Claims 1 or 12. For at least the reasons given above with respect to Claims 1 and 12, Applicants respectfully submit that Claims 15-20 are allowable.

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[8] See MPEP 2143.
[9] See Office Action, page 6.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance, and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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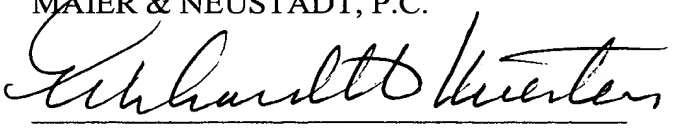

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